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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/141,286	05/08/2002	Jeffrey T. Kohli	ADP-122RE	9323

7590

11/12/2002

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EXAMINER

STEIN, STEPHEN J

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 11/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/141,286

Applicant(s)

KOHLI, JEFFREY T.

Examiner

Stephen J Stein

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14-18 and 20-39 is/are rejected.
- 7) ☒ Claim(s) 8-13 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 3.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Reissue Applications

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 14-18 and 22-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 361281041A (Nakao et al.).

Nakao teaches a alkali free glass composition suitable for a display substrate comprising:

62.5 wt % SiO_2

15.0 wt % Al_2O_3

4.0 wt % B_2O_3

0.0 wt % SrO

5.5 wt % CaO

0.0 wt % BaO

7.5 wt % MgO

0.0 wt % $\text{SrO} + \text{BaO}$

13.0 wt% $\text{MgO} + \text{CaO} + \text{SrO} + \text{BaO}$

Thermal Expansion factor for 50-350°C is $35 \times 10^{-7}/^\circ\text{C}$

(See Table 1, Sample 7).

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With regard to the limitation of the strain point, it is expected that the disclosed composition would inherently have this claimed property since it is the same composition as that disclosed by applicant. It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a prima facie case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977). With regard to the process limitations recited in the claims, process limitations in product claims are generally not dispositive on patentability unless it is shown that the process limitations produce a materially different product. MPEP §2113.

3. Claims 1-7, 14-18 and 22-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 402133334A (Machishita et al.).

Machishita teaches an alkali free glass composition suitable for a transparent substrate of a display comprising:

62.5 wt % SiO_2

15.0 wt % Al_2O_3

4.0 wt % B_2O_3

0.0 wt % SrO

5.5 wt % CaO

0.0 wt % BaO

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7.5 wt % MgO

0.0 wt % SrO + BaO

13.0 wt% MgO + CaO + SrO + BaO

(See Table 1, Sample 16).

With regard to the limitation of a CTE over a claimed particular temperature range and strain point, it is expected that the disclosed composition would inherently have these claimed properties since it is the same composition as that disclosed by applicant. It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a *prima facie* case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977). With regard to the process limitations recited in the claims, process limitations in product claims are generally not dispositive on patentability unless it is shown that the process limitations produce a materially different product.

4. Claims 1-3, 5-7, 14-16, 18, 20, 22-26, 28-36 and 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,244,847 (Kushitani et al.).

Kushitani teaches an alkali free glass composition for various displays comprising:

60 wt % SiO₂17 wt % Al₂O₃

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4 wt %	B ₂ O ₃
0 wt %	SrO
11 wt %	CaO
0 wt %	BaO
8 wt %	MgO
0.0 wt %	SrO + BaO
19.0 wt%	MgO + CaO + SrO + BaO

Strain Point = 675 °C

(See Tables 1 and 2, Sample 9).

With regard to the limitation of the CTE, while it is noted that Example 9 does disclose that the Thermal expansion coefficient is $44 \times 10^{-7}/^{\circ}\text{C}$, there is no temperature range disclosed for this particular CTE value, therefore it is presumed that the disclosed composition will have a CTE value within the claimed range for the claimed temperature range, since the reference discloses a composition within the claimed ranges. It has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a *prima facie* case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977). With regard to the process limitations recited in the claims,

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process limitations in product claims are generally not dispositive on patentability unless it is shown that the process limitations produce a materially different product. MPEP §2113.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-7, 14-18 and 20-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 408295530A (Miwa).

Miwa teaches an alkali free glass substrate for composition for a liquid crystal display or EL display (TFT) type active matrix liquid display comprising

55-65 wt % SiO_2

11-20 wt % Al_2O_3

9-15 wt % B_2O_3

0 - 10 wt % SrO

0-4.5 wt % CaO

0.5 - 9 wt % BaO

3-10 wt % MgO

0.5 - 19 wt % $\text{SrO} + \text{BaO}$

3.5 - 33.5 wt% $\text{MgO} + \text{CaO} + \text{SrO} + \text{BaO}$ (See Abstract)

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Although the reference does not disclose a specific example of the glass composition which falls within the claimed range, and fails to disclose the claimed properties of applicant's invention, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to vary the compositional components within the overlapping disclosed ranges in order to obtain the desired physical characteristics, because the prior art suggests such variations by the disclosure of these broad ranges. With regard to the process limitations recited in the claims, process limitations in product claims are generally not dispositive on patentability unless it is shown that the process limitations produce a materially different product. MPEP §2113.

Allowable Subject Matter

7. Claims 8-13 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

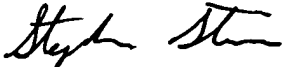
The prior art of record fails to teach or suggest an alumina-silicate glass composition recited in these claims. In particular in dependent claims 8-13 and 19 claim that the weight percent range of B_2O_3 is 5-13% (6< and <13 for claim 13) and the weight percent range of the CaO is 5-12%. While certain prior art such as Miwa does teach certain alkali free glass compositions with 9-15 % B_2O_3 , the Miwa reference limits the CaO content to 4.5% which is below the claimed 5-12% range in these claims.

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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Stein whose telephone number is (703) 305-0583. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m. If the attempts to reach the examiner are unsuccessful, the examiner's supervisor, Deborah Jones can be reached by dialing (703) 308-3822. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose phone number is (703) 308-0661. The fax phone number for this group is (703) 872-9310 for non-final responses and (703) 872-9311 for after final responses.

October 20, 2002



Stephen J. Stein

Interview Summary	Application N	Applicant(s)	
	10/141,286	KOHLI, JEFFREY T.	
	Examiner	Art Unit	
	Stephen J Stein	1775	

All participants (applicant, applicant's representative, PTO personnel):

(1) Stephen J Stein. (3) _____

(2) Maurice M. Klee, PhD. (4) _____

Date of Interview: 18 October 2002 .

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.

If Yes, brief description: _____ .

Claim(s) discussed: _____ .

Identification of prior art discussed: US 5244847, US 5508237, US 5851939, JP361281041A, JP402133334A, JP408295530A. .

Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

i) ☒ It is not necessary for applicant to provide a separate record of the substance of the interview(if box is checked).

Unless the paragraph above has been checked, THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: This examiner contacted the applicant's representative to inquire about a limitation which was removed in this reissue application which had been previously added in a certificate of correction. Applicant's representative stated that applicant had not intended this limitation to be in the claims. Applicant's representative further stated that they intended to file an IDS with newly discovered prior art. In order to expedite prosecution, applicant's representative verbally reported these prior art references to this examiner so that they could be considered in the examination of the reissue application (See above references) Applicant's representative stated that an IDS would be submitted in response to the first office action.

Notic of Referenc s Cited	Application/Control No. 10/141,286	Applicant(s)/Patent Under Reexamination KOHLI, JEFFREY T.	
	Examiner Stephen J Stein	Art Unit 1775	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,244,847	09-1993	Kushitani et al.	501/66
	B	US-5,508,237	04-1996	Moffatt et al.	501/69
	C	US-5,851,939	12-1998	Miwa, Shinkichi	501/70
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	JP361281041a	12-1986	Japan	Nakao et al.	---
	O	JP402133334A	05-1990	Japan	Machishita et al.	---
	P	EP0714862A1	06-1996	EPO	Nishizawa et al.	---
	Q	JP408295530A	11-1996	Japan	Miwa	---
	R	WO97/11920	04-1997	IPO	Miwa	---
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.